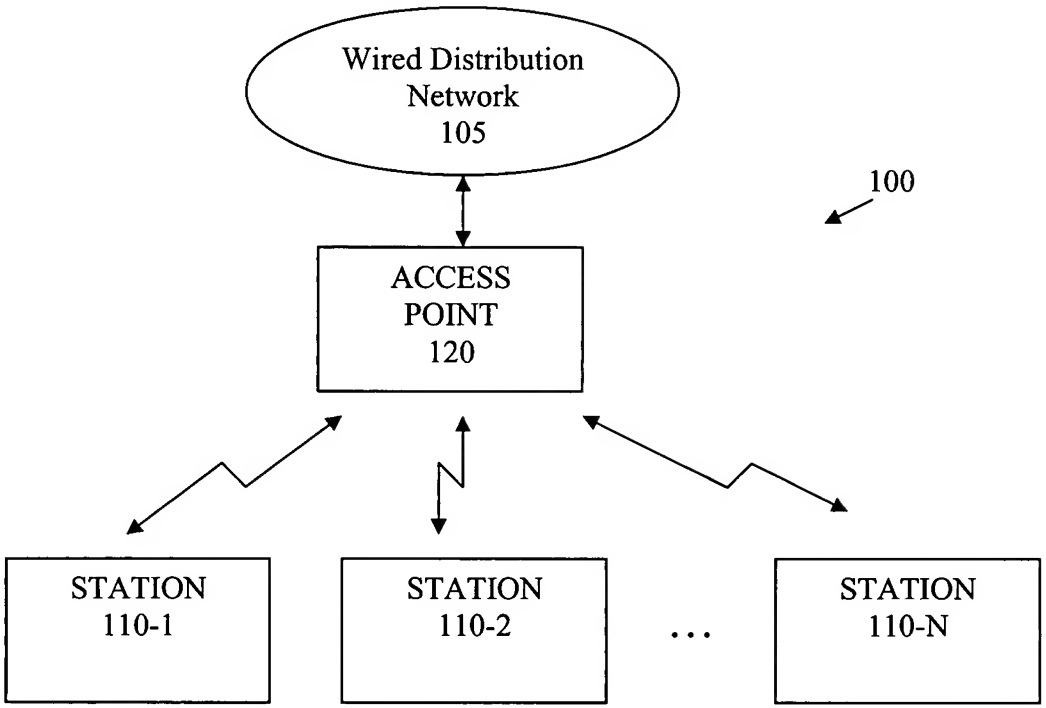

FIG. 1
PRIOR ART

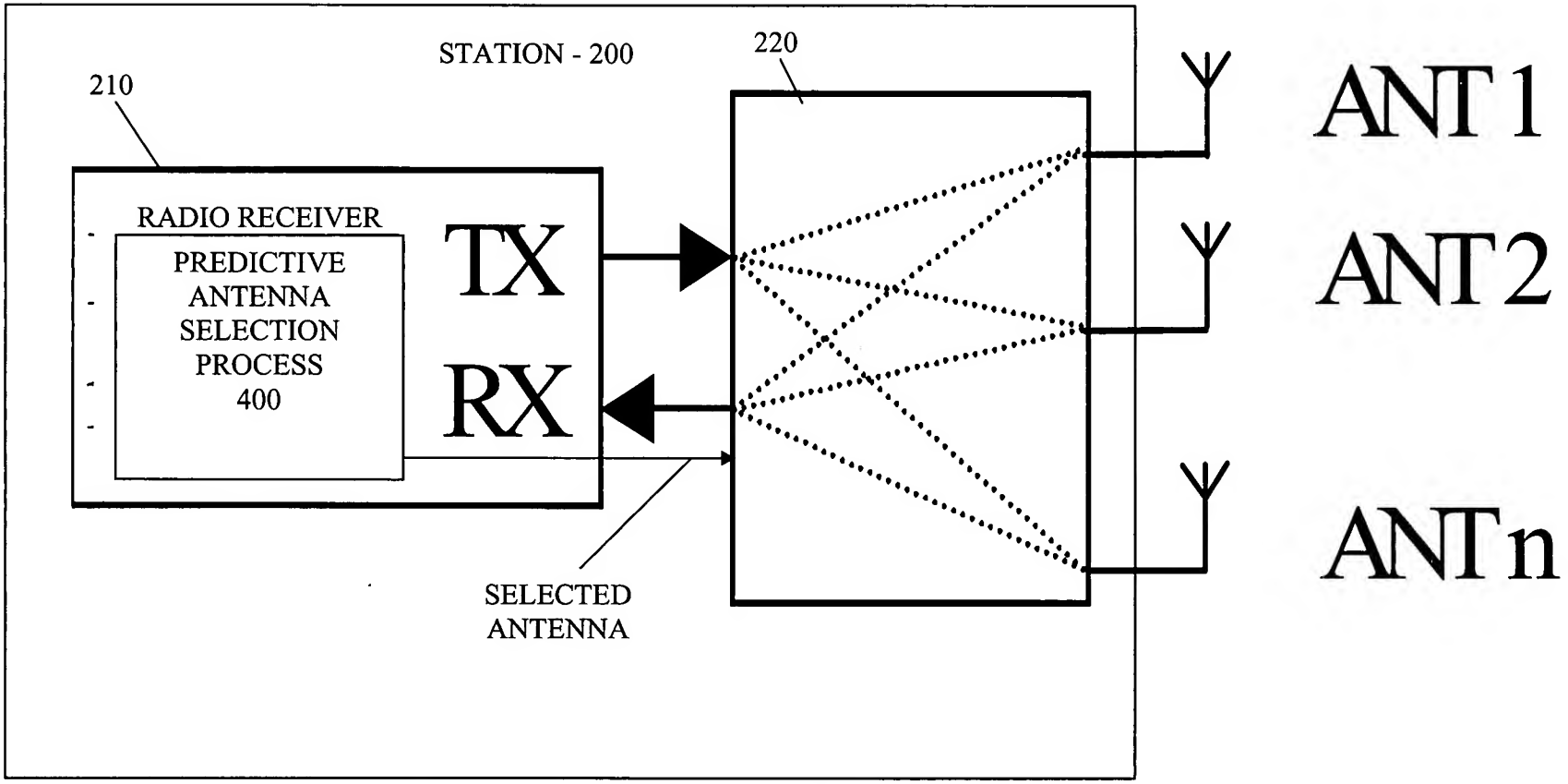
STATION - 200
210
220
RADIO RECEIVER
PREDICTIVE
ANTENNA
SELECTION
PROCESS
400
TX
RX
SELECTED
ANTENNA
ANT 1
ANT 2
ANT n

FIG. 2

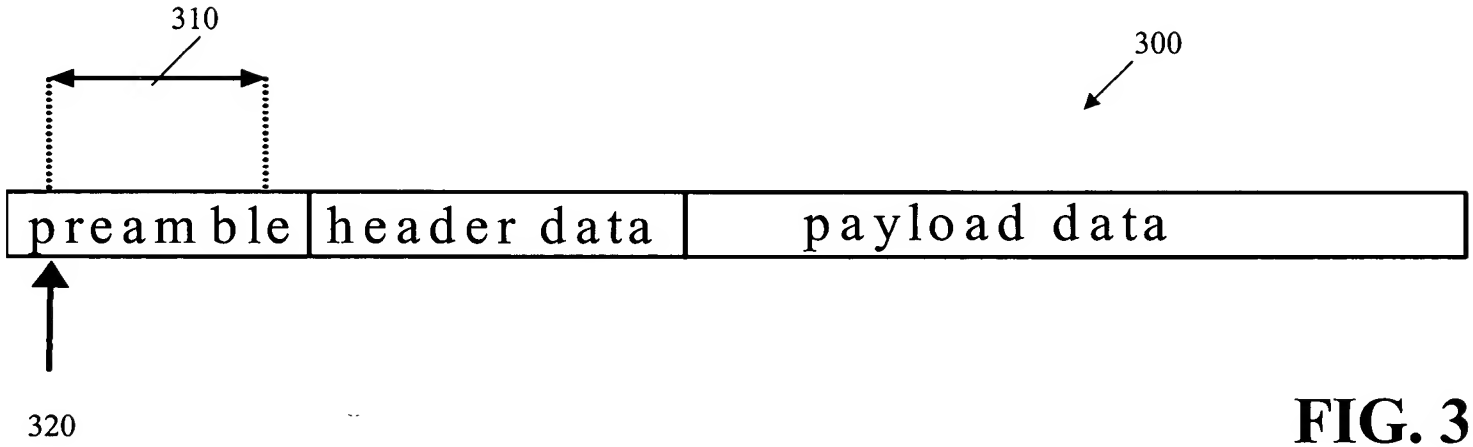

FIG. 3

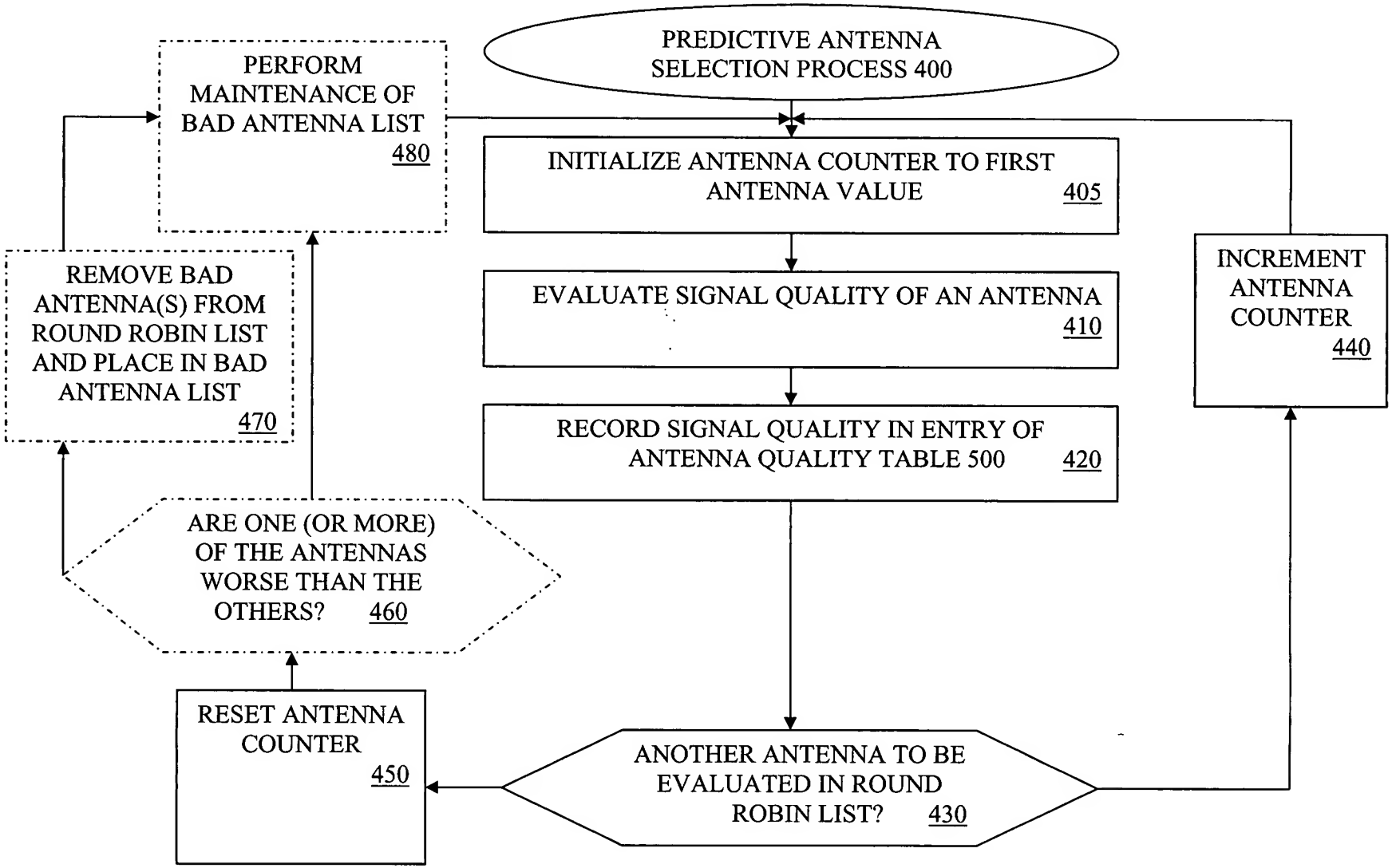
PREDICTIVE ANTENNA SELECTION PROCESS 400
PERFORM MAINTENANCE OF BAD ANTENNA LIST 480
INITIALIZE ANTENNA COUNTER TO FIRST ANTENNA VALUE 405
EVALUATE SIGNAL QUALITY OF AN ANTENNA 410
RECORD SIGNAL QUALITY IN ENTRY OF ANTENNA QUALITY TABLE 500 420
INCREMENT ANTENNA COUNTER 440
REMOVE BAD ANTENNA(S) FROM ROUND ROBIN LIST AND PLACE IN BAD ANTENNA LIST 470
ARE ONE (OR MORE) OF THE ANTENNAS WORSE THAN THE OTHERS? 460
RESET ANTENNA COUNTER 450
ANOTHER ANTENNA TO BE EVALUATED IN ROUND ROBIN LIST? 430

FIG. 4

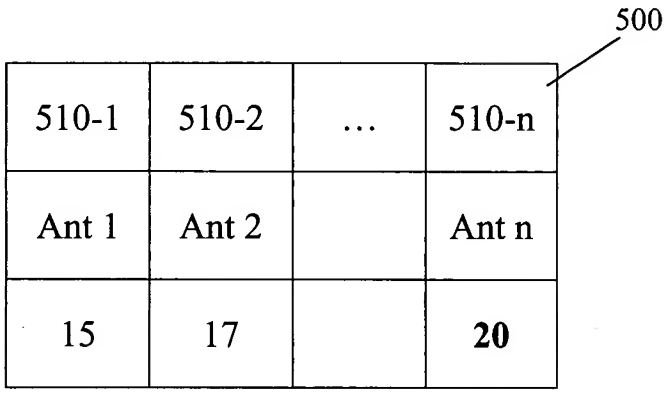

FIG. 5

```
// initialize variables
function Initialize () {
     list_of_good_antennas = 1..number_of_antennas;
     list_of_bad_antennas = empty;
     nr_good_receptions = 0;
     bad_reception = false;
     rx_antenna = first one in list_of_good_antennas;
     configure_receiver_antenna (rx_antenna);
     initialize Antenna Quality list;
}

// a frame has been received from the central node on antenna x, with a certain
signal quality
function FrameReceived (Antenna x, SignalQuality sq) {
     update value that belongs to antenna x in Antenna Quality list with new data sq

     // select the next good antenna from the list of good antennas, EXCEPT that
once
     // every 'max_good_receptions' one of the bad antennas is selected to refresh
its sq value
     if nr_good_receptions = max_good_receptions then
          nr_good_receptions = 0;
          if list_of_bad_antennas is empty then              // no bad antennas to
measure
               let rx_antenna = next one in list_of_good_antennas;
               increment nr_good_receptions;
          else
               let rx_antenna = next one in list_of_bad_antennas;
          fi
```

FIG. 6A

```
        else
            let rx_antenna = next one in list_of_good_antennas;
            increment nr_good_receptions;

        fi
        configure_receiver_antenna (rx_antenna);

        // put bad antennas in the 'bad' list, and put good antennas in the 'good' list
        if antenna x in list_of_good antennas AND
        it is worse by (margin + hysteresis) than any other antenna in the Antenna
        Quality list then
            remove antenna x from list_of_good_antennas;
            insert antenna x into list_of_bad_antennas;
        else if antenna x in list_of_bad_antennas AND
        it is not worse by (margin - hysteresis) than any other antenna in the Antenna
Quality list then
            remove antenna x from list_of_bad_antennas;
            insert antenna x into list_of_good_antennas;
        fi
}

// a frame is to be transmitted to node B
function TransmitFrame (frame) {
        let tx_antenna = the antenna in the Antenna Quality list with the highest
signal quality;
        configure_transmitter_antenna (tx_antenna);
        transmit (frame);
}
```

FIG. 6B